

The Impact of Educational Management Information System (EMIS) on University Leadership and Management: The Case of the University of Bamenda, Cameroon

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Abstract: Information is key ingredient in effective education system. This study aimed at investigating the impact of EMIS on leadership and management in the University of Bamenda. Specifically, it identified EMIS services, major problems and challenges of EMIS implementation and utilization by students, lecturers and administrative staff as well as the impact of EMIS on leadership and management in the University of Bamenda. Review of literature was done on the meaning of EMIS, Major problems and challenges facing leaders and managers in the use of EMIS and the impact of EMIS on leadership and management. Questionnaires and observation were used to collect information from the respondents. Tables and percentage were used to describe the data obtained. It was found that the university is inadequately equipped with EMIS operations. The study recommends some awareness creations at all the levels through workshops, seminars, written materials and other related methods.

Keywords: Education Management Information System (EMIS), Leadership, Management, University of Bamenda (UBa).

Introduction

Information is vital to improving student learning, university effectiveness, and quality of educational leadership, management, and planning and policy formation. For this reason, using relevant and reliable information is important for making rational decisions, enhancing planning, supporting monitoring and evaluation, and helping policy and strategy reviews within educational systems (Chapman & Mahlck, 1993). The use of information in education has increased due to its efficiency and effectiveness informed decision making. Educational leaders initially compelled with a daunting task of university management, presently got a better option due to enhanced technological advancement. Information technologies facilitate the decentralization of work tasks and their coordination in an interactive network of communication in real time (Castells, 1996). EMIS are used by schools to fuel a range of administrative activities including attendance, monitoring, assessment, records, reporting and finance management. EMIS provide educational leaders with the information required to manage organizations effectively and efficiently. EMIS allows for greater flexibility in educational management and a constant adaptation to an ever-changing environment (Castells, 2001). As we live in the era of technology and information, success in organizing information systems for the development of education depends on the effective use and implementation of Education Management Information Systems (EMIS) (Wako, 2003). Therefore educational leaders must understand efficient information management is an important aspect for effective university leadership. An EMIS collects, manages and facilitates utilization of education data which anticipates effective school leadership. The impact of EMIS on the University of Bamenda

leadership and management will be visible in enhancing communication among teaching staff (lecturers), administrative staff, security personnel, guards, cleaners, students and external community, provide an intensive system of recording and aggregate information, support the university's strategic goals and direction and most importantly enhance and facilitate the on-line teaching and learning within the Covid-19 pandemic period. The impact EMIS on the University of Bamenda leadership and management is also noticeable in how it enhances and supports decision-making process, job performance and provides through which activities can be controlled, executed, monitored and information disseminated to the different educational stakeholders.

Statement of the Problem

An educational institution is compelled and expected to provide accurate and precise information to brighten the condition of education and contribution to its improvement plans and this relates greatly to the success of EMIS. The educational management information systems help to provide the necessary information to make decisions with the effectiveness and efficiency, and as far as accuracy, comprehensiveness and timeliness in the providing information increase the efficiency of those decisions, which leads to improved performance (Al Tai, 2005). EMIS elaborates the fact that information is vital to carry out leadership and management functions, as well as the overall achievement of the strategic vision and mission of an educational organization. EMIS provides knowledge to educational stakeholders on the status of the educational system, learning outcomes, valued-based components to improve educational quality, enhance management practices and data-driven policies. This paper sought to find out the impact of EMIS on the University of Bamenda leadership and management. By understanding the impact of EMIS on university leadership and management, major problems and challenges encountered in the implementation and utilization of EMIS would be identified and efforts made to improve the implementation and utilization of EMIS to enhance leadership and management in the University of Bamenda.

Purpose of the Study

This paper sought to find out the impact of EMIS on the leadership and management in University of Bamenda.

Objectives of the Study

The specific objectives of the study were to;

1. Identify the Educational management information systems available in University of Bamenda
2. Find out some of the major problems and challenges of EMIS implementation and utilization in University of Bamenda.
3. Find out the impact of EMIS on leadership and management in University of Bamenda

Significance of the Study

The study is significant in a number of ways; first, it will guide the University of Bamenda leadership and management in particular and other institutions of higher learning in general as to the kind of EMIS that will be effective in their day to day activities. Secondly it will help University of Bamenda leadership and management to identify strength and weaknesses of existing EMIS and take corrective actions. Finally it will be a vital document for professionals in the IT field regarding the design and implementation of EMIS for institutions of higher learning. It will also help to identify the challenges in utilization of EMIS in teaching and learning. This study enables the institution to employ pragmatic measures to correct the loopholes in teaching and learning with EMIS within this period plagued the Covid-19 pandemic. It will guide and act as a reference material to support other researchers who would like to make further studies into this field.

Literature Review

Meaning of Educational Management Information System (EMIS)

The Educational Management Information System (EMIS) is an information system utilized to systematically collect educational data from schools. According to Cassidy (2006) Educational management information system is defined as:

It is a system for the collection, integration, processing, maintenance and dissemination of data and information to support decision making, policy-analysis and formulation, planning, monitoring and management at all levels of an education system. EMIS is composed of people, technology, models, methods and processes, procedures, rules and regulations that function together to provide educational leader, as well as other educational stakeholders with a comprehensive integrated set of relevant, reliable and timely data and information to support them on completion of their responsibilities. An Education Management Information System (EMIS) is an institutional service unit producing, managing, and disseminating educational data and information, usually with national ministry or department of education (Hua and Herstein, 2003). EMIS is further defined by Hua and Herstein (2003) as a set of formalized and integrated operational process, procedures, and cooperative agreements by which data and information about schools and schooling, such as facilities, teachers, students, learning activates, and evaluative outputs, are regularly shared, integrated, analyzed EMIS is a system of people, technology, models, methods, processes, procedures, rules and regulations that function together to provide education leaders, decision makers and managers at all levels with a comprehensive, integrated set of relevant, reliable, unambiguous, and timely data and information to support them in completion of their responsibilities. EMIS is basically concerned with the process of collecting, processing, storing and transmitting relevant information to support decision making in any organizations (Laudon and Laudon, 2007); a system to convert data from internal and external sources into information; and to communicate that information in an appropriate form to managers at all levels, in all functions to enable them make timely and effective decisions for planning, directing and controlling the activities for which they are responsible (Bee and Bee, 1999). EMIS is an organized group of information and documentation services that collects, stores processes analyzes and disseminates information for educational planning and management (UNESCO, 2003). It is a collection of parts that include inputs, outputs processes and feedbacks which are usually integrated to achieve a specific objective. It manages large body of data and information that are readily retrieved, processed, analyzed, and made available for use dissemination. Educational leaders and managers being potential users of data, need to be systematically provided with timely and accurate information so that decision-making, planning and other management functions and operations can be carried out effectively. Information is definitely a key ingredient to effective leadership and management. An EMIS provides systematic, quality data in a structured environment that enables utilization of the information produced in planning and policy debates. EMIS equally provides to education stakeholders about the status of the educational system as a whole the learning outcomes of the country. EMIS also potentially support management, leadership and planning by school leaders and managers, as well as teaching and learning in the classroom.

Major Features of EMIS

The main purpose of an EMIS is to integrate information related to the management of educational activities, and to make it available in comprehensive yet succinct ways to a variety of users. These include teachers, principals, curriculum planners, inspectorate officials, financial controllers, planners, policy advisers and political leaders, as well as parents and students. In this way, the combined information resources of the EMIS are at the service of the entire community.

The overall concept of an EMIS has given to the following objectives:

- a. To improve capacities in data processing, storage, analysis and supply of educational management information so that education planners and administrators can avail themselves of reliable and timely data
- b. To co-ordinate and further improve dispersed efforts in the acquisition, processing, storage, transmission, analysis, repackaging, dissemination and use of educational management information
- c. To facilitate and promote the use of relevant information by various agencies and individuals at all levels for more effective educational planning implementation and management
- d. To streamline the flow of information for decision-making by reducing and eliminating duplications as well as filling information gaps
- e. To provide information for policy dialogue and scenarios for development of the education system (UNESCO, 2003).

Major problems and challenges facing Educational Leadership and Management in the use of EMIS

In present day university, information is an imperative management and leadership process since its production; transfer and consumption create the foundation for effective and efficient management. The correct and accurate flow of information determines the results of activities in an organization and most especially educational systems. According to Babaei & Beikzad (2013), the major problems of in the usage of EMIS in Organizations are divided into humanistic, organizational and environmental factors.

Humanistic factors

- The lack of information of the managers and users as they don't know exactly what they want and what their information needs are.
- The lack of understanding of the needs of the users by designers (the lack of correct definition of the needs and their analysis)
- The lack of information of the managers and users about the collaboration method with the designer team.
- The lack of participation of the managers and users in system design.
- The lack of understanding of the managers of software and information systems.
- The lack of information of most of the analysts and programmers (designers) with new system work environment.
- The lack of acceptance of the system executers and resistance against the change.
- The lack of accuracy in the data collected

Organizational factors

- The lack of good conditions for participation and collaboration of the managers, users and system directors
- The lack of consistency and complexity of the existing manual systems.
- The lack of existing systems and methods analysis before the system design
- The lack of evaluation of the existing power
- Bad condition of educating the specialized forces
- The lack of human resources with management and computer fields and other required specializations (the problems of absorbing human resources)

- Inadequate education of the users
- Inadequate and incomplete documentation
- Unsuitable implementation of the system

Environmental factors

- The lack of quality criterion of the existing information systems
- The lack of suitable consultants for designing the system and software
- The lack of procedures and methodology and stages of creating the system
- The lack of evaluation of environmental aspects in management information systems
- The lack of suitable use of mass media to develop the culture of using computer and information systems.
- The lack of holding suitable MA training courses in the universities and the lack of suitable education of human resources in this regard.
- The lack of serious consideration and adequate investment in this regard.

Other major problems and challenges relating to EMIS usage are:

- Limited access to modern computing and communication technology. This is due to the prohibitive cost of modern ICT to educational institutions.
- Lack of adequate and appropriately trained staff in modern computing and communication technology
- Large quantities of data are collected which appear to be rarely if ever used
- Lack of information sharing
- Non availability of adequate information
- Lack of awareness and negative attitude towards EMIS
- Lack of adequate resources
- Lack of monitoring and evaluation tools

Impact of EMIS on leadership and management

EMIS greatly helps school leadership and management in decision making. The educational leader and manager use EMIS as a tool to define the problem being faced, understand the problems and find the solutions (Shafie, 2005, Mcleoo, 1998). Decision making is an integral part of leadership and management, and as such, operations in a school revolve around decision making made by both leadership and management. Since decisions made have to be adequate, it is therefore vital for there to be a good information system on the grounds that decisions are based on information available. Jahangir (2005), states that based on the significant role information plays in choice of decision to be made, school leadership and management must ensure that they have a good EMIS. UStudy.in (2010) supports the observation by saying that “the quality of managerial decision-making depends directly on the quality of available information” and leadership and management should therefore cultivate an environment the growth and sprouting of quality information.

EMIS helps leadership and management to fuel progress towards three outcomes: improved student learning, increased equity, and stronger accountability relationships among policy-makers, school leaders/administrators, teachers, parents and students. Scholars have suggested two avenues through which the use of data can lead to these desired outcomes: (1) improving the quality of decisions made and (2) strengthening the mechanisms available to monitor progress and motivate responsiveness (Best et al., 2013; Kel-laghan et al., 2009; Jacob, 2017; UNESCO, 2013; World Bank, 2018). Within the phase of decision-making, EMIS provide leadership and

management to pinpoint problems and assess the merits of possible solutions. In this respect, the use of EMIS through empirical-data and analysis by leadership and management to tackle difficult questions on how to bolster learning, reduce wasteful spending and target resources efficiently to areas of greatest need. Within the phase of stronger monitoring and accountability, EMIS through regular collection of data and information allows leadership and management to consistently assess the functioning of the education system-students, teachers, schools and policies-based on objective performance indicators and targets. Such assessment helps all the stakeholders to stay up-to-date on how the education system is performing (Read and Atinc, 2017).

EMIS is recognized as one of the most significant accomplishments in the area of school effectiveness and efficiency because it supplies leadership and management with reliable, exact, relevant and complete information towards increasing school improvement (Munirat et al., 2014). Also, EMIS assist leadership and management in the functioning and monitoring of a school as well as controlling the school performance (Al-Mamary et al., 2014 and O'Brien, 1998). It provides feedbacks to leadership and management that can be used to monitor and evaluate if the educational system in achieving the established or set standards. People and systems should work together to ensure that desirable outcomes are achieved. Therefore, information systems form part of an effective performance management for school leadership and management (Gorlo & Wong, 2010).

EMIS is usually designed to assist leadership and management to structure, management task, instructional processes and special needs of the school (Telem, 1999). With such, school programs are more effective, making the teaching process and the changes in learning environment professional, enabling teachers to exchange their experiences in a more systematic way, working in teams, determining the needs if the students (Gurr, 2000,; Pegler, 1992), and supporting the school managers and other staff in doing their duties, developing their performance, effectiveness and efficiencies (Telem & Buvitski, 1995). In other words, EMIS increases school effectiveness and efficiency by saving time and facilitating development of alternative solutions to sophisticated problems (Vissher & Wild, 1997; Pegler, 1992).

EMIS has caused a significant change in the roles and responsibilities of leadership and management. It has brought a significant change in school management in areas of leadership, decision-making, workload, human resource management, communication, responsibility and planning (Gurr, 2000). Strategically, EMIS helps leadership and management in determining the aims of the school, making long term plans, distributing resources and forming educational methods of the future, determining performances of teachers and success of the school (Telem & Buvitski, 1995; Telem, 1991).

EMIS provide leadership and management with information and various reports from the database which are used to make decision in line with the aims of the school and facilitate controlling of the activities to achieve the aims (Telem & Buvitski, 1995; Telem, 1999,; Christopher, 2003). EMIS helps leadership and management to access, manage, and report the information quickly and easily.

EMIS has changed the role of school leaders and managers (Pegler, 1992) and have changes their methods of working (Christopher, 2003). One of these is to develop a database that includes information on student registration and family, discontinuity, grades, staff and class and course information (Demir, 2006). The other areas are management of school library, finance, school scheduling planning, standard reports sent to higher levels of school administrators etc. (Demir, 2006). These are simple data processing activities that increase efficiency of school management (Pegler, 1992). EMIS is therefore a means for school leaders and managers to determine the required information, access information, interpret the data in decision-making, evaluating and developing efficient use of the system (Demir, 2006).

Researchers in various countries confirm that EMIS increases organizational and managerial effectiveness. After studies have been done in American leaders and managers, Hedberg, Harper,

Bloch and College (1992) stated that efficiency has increased in decision-making at schools where EMIS are used. In a study by Gurr, (2000) where he examined the effects of school management information system, on working primary school managers in Australia, the managers stated that the use of EMIS has introduced them to information technologies and the facilities, lessened their workload and made management process more efficient, helped them use time efficiently, made important changes in education, teaching and increased the quality of in-school communication. In their study with school managers, Telem & Buvitski (1995) found that school managers believed that EMIS has led to important changes at school. In their study, the school managers found that the application of EMIS has increased school standards, helped decision-making on the level of control and strategy, increased the quality of teaching programs, facilitate student-teacher interaction, increased the coordination between teachers and increased communication between with the institutions and the central organization.

METHODOLOGY

Research Design

The design for this study was a survey. This is because the survey research allows us to collect and analyze responses from a large sample of people through polls and questionnaires designed to elicit their opinions, attitudes and sentiments on a specific topic. According to Orodho (2003), descriptive survey research design are used in preliminary and exploratory studies to allow the researchers to gather information and summarize present and interpret data for the purpose of clarification. Saunders et al. (2012) additionally posit that the survey strategy is frequently linked to the deductive approach, thus, explaining quantitative data as being analyzed using descriptive and inferential statistics.

Population

According to Agyedu, Donkor and Obeng (2011) population ‘ refers to the complete set of individual (subjects), objects or events having common observable characteristics in which the researcher is interested in studying’. Population therefore referred to a selected group of people set aside for a specific purpose. The study is concentrated on the students, lecturers, and administrative staff of the University of Bamenda. These formed the population under this study. For this study, the population was one thousand, including the administrative staff, lectures and students.

Sampling Size and Sampling techniques

Sample is the process whereby the population is limited to a relatively small portion. It promotes effective and efficient study. Based on the above elaboration, the researcher’s sample size was one hundred and fifty (100). Of these, fifty (50) were students, ten (10) administrative staff, and forty (40) lecturers. Purposive sampling technique was adopted to select the respondents for the study.

Data Collection Instruments

Questionnaire and observation were the instruments used in collecting data for this study.

Questionnaire: A questionnaire is an instrument that shows different kinds of questions or statements known as items that are carefully planned and drafted to solicit responses. The validity and reliability of this technique is to a large extent guaranteed since respondents have enough time to think and supply responses.

Observation: An observation is when a person has been put under study for some specific behaviour. The validity and the reliability of this method can also be rest assured because the researcher looks out for specific factors that are related and relevant to the study and would not have any errors.

Data Collection Procedure

Questionnaire and observation were the instruments used in collecting data for this study and the various procedures by which these instruments were used to obtain data for the study.

The questionnaire was carefully prepared, for students and lectures in the University of Bamenda. Fifteen items were prepared on the questionnaire for students and lecturers. These questionnaires were carefully designed to seek responses that could help solve the problem at stake. The researcher also carefully observed students' during registration of courses, paying fees, assessing their students' portal, at lectures, library and even at the notice boards to seek for information to address the problem. This method was used because it provides immediate and reliable feedback about a topic and behaviour under study.

Data Analysis

The analysis of data is the process where one is trying to gather and present the data in such way so it has a good structure and becomes easy to understand (Repstad, 2009). In addition, data analysis is a process of bringing order, structure and meaning to the mass of collected data (Ghauri, 2004). The goal with the analysis is to be able to come up with trustworthy conclusions which are based on the empirical data. The empirical findings and the theoretical framework will be compared by analyzing data which has been collected in relation to existing theories. Data were analyzed after all questionnaires were gathered together. SPSS was the main analytical tool for this study since the researcher is very familiar with it. An opportunity was provided for the results that were gathered using questionnaires and observations to be critically analyzed. The results were carefully analyzed using frequency tables and percentage. The results were discussed in accordance with the research questionnaires orderly. The researcher based the analysis on this technique since it appears simple and requires no technical knowledge to interpret and understand results gathered.

RESULTS OF THE STUDY

The personal information or profiles of the respondents were collected for the researcher to know the various types of respondents dealing with. This enables the researcher to understand and be familiar with the background information of the respondents well.

Table 4.1: Age Distribution

Age Group	Frequency	Percentage %
Below 20 years	5	5
21-30 years	50	50
31-40 years	25	25
41-50 years	15	15
51 & above	5	5
Total	100	100

Source: Researcher's Field Study, 2021.

Table 4.1 shows the terms of age group distribution of the respondents, 5% of the respondents were below 20 years, 50% were between 21-30 years, 25% were between 31-40 years, 15% were between 41-50 years and 5% were 51 years and above.

Table 4.2: Gender of Respondent

Gender	Frequency	Percentage %
Male	60	60
Female	40	40
Total	100	100

Source: Researcher's Field Study, 2021

Information used in the University of Bamenda (UBa)

This represents the kinds of EMIS used in UBa and how often they are used by lecturers, students and administrative staff in administrative process and teaching and learning. Some selected EMIS are itemized and the respondents rated their existence and usability within the UBa campus. The various types of EMIS such as Departmental WhatsApp Groups (DWG), UBa

Facebook page (UBaFB), Learning Management system (LMS) online teaching platform, and management information system (MIS-UBa student platform) were assessed.

Table 4.3: Types of EMIS used in UBa campus

Types	Frequency	Percentage %
DWG	30	30
UBaFB	10	10
LMS	30	30
MIS	30	30
Total	100	100

Source: Researcher's Field Study, 2021

Table 4.3 indicates the various types of EMIS systems within UBa campus. The above table shows Departmental WhatsApp Groups (DWG), UBa Facebook page (UBaFB), Learning Management system (LMS) online teaching platform, and management information system (MIS-UBa student platform) are used.

DWG representing 30%, followed by LMS which is 30%, MIS which is 30% and UBaFB is used in few occasions which represent 10%. The systems are used by lecturers, students and administrative staff to achieve the goals of the university. The systems are used by lecturers, students, and administrative staff to achieve the goals of the university. There is an interrelationship among these EMIS systems for effectiveness and efficiency.

Table 4.4: Easy Accessibility of information at UBa-campus

Item	No of Respondent	Percentage %
Computer	10	10
Telephone (DWG)	50	50
Wireless internet connection	5	5
Library	25	25
Notice Board	10	10
Total	100	100

Source: Researcher's Field Study, 2021

Table 4.4 shows how the respondents get access to the information systems available at UBa campus. From the table, easy access to information from the telephone formed 50%, library consists of 25%, computer recorded 10%, and Notice Board noted 10% and Wireless Internet connection recorded the least with 5%.

Effective Utilization of EMIS in Teaching and Learning in UBa campus

The table below shows the effective utilization use of EMIS within UBa campus. The researcher has three categories of respondent under the study. In teaching and learning, students, lecturers and administrative staff make use of EMIS. But whether it is used effectively to achieve their intended objectives is a challenge. Table 4.5 describes the effective utilization of EMIS by categories of respondents mentioned.

Table 4.5: Effective Utilization of EMIS in teaching and learning in UBa campus

Group	No of Respondent	Percentage %
Administrative staff	10	10
Lecturers	40	40
Students	50	50
Total	100	100

Source: Researcher's Field Study, 2021

In table 4.5, the students which represent 50, is the group that most and effectively use EMIS in UBa campus representing 50%, followed by lecturers which is, 40% and lastly administrative staff representing 10%. This implies that the students mostly used the EMIS within UBa campus.

Table 4.6: EMIS has help achieved my teaching, learning and administrative objectives

Items	No of Respondent	Percentage %
Yes	85	85
No	15	15
Total	100	100

Source: Researcher's Field Study, 2021

Table 4.6 it clearly shows that EMIS has helped 85% of the respondents in achieving their objectives while 15 of the respondents representing 15% have not able to reach their target. This concludes that EMIS is been utilized well within the school because majority of the respondents have satisfy their intended aims.

How MIS Utilization has Improved Teaching and Learning

The use of MIS has in fact enhances the teaching and learning process in a numbers of ways. It has been used by students and lecturers in these areas of teaching and learning process. Both students and lecturers have benefited from MIS in different forms and many aspects in the university campus.

Table 4.7: EMIS has help in my project work

Items	No of Respondent	Percentage %
Yes	100	100
No	0	0
Total	100	100

Source: Researcher's Field Study, 2021

Table 4.7 shows how EMIS facilitates the completion of project works. All the respondents agreed to the fact that EMIS has helped them in their project work. None answered no. This is an indication to the state at which EMIS has improved teaching and learning.

Table 4.8 EMIS has make class presentation effective

Items	No of Respondent	Percentage %
Yes	80	80
No	20	20
Total	100	100

Source: Researcher's Field Study, 2021

Table 4.8 shows that 80 of the respondents representing 80% said EMIS have made class presentation effective. While 20% of the respondents answered no to show ineffective it has been to them.

Table 4.9 EMIS has make Online learning easy

Items	No of Respondent	Percentage %
Yes	85	85
No	15	15
Total	100	100

Source: Researcher's Field Study, 2021

Table 4.9 shows how EMIS has improved teaching and learning through the use of internet facilities within UBa campus. 85 of the respondents representing 85% buttressed that internet services has facilitated online learning through LMS. While 15 respondents representing 15% said no to the question item.

Challenges of the use EMIS in Teaching and Learning

EMIS definitely has several challenges in its implication in most institution as it often faced with resistance to change. Most users are usually not satisfied to a certain extent and this creates a lot

of challenges to organizational leadership and management. Based on the above, the researcher decided to investigate the strengths and challenges of EMIS in UBa campus.

Table 4.10: Strength of EMIS within UBa in teaching and learning

Items	No of respondent	Percentage %
Not Satisfactory	70	70
Satisfactory	15	15
Somehow Satisfactory	15	15
Total	100	100

Source: Researcher's Field Study, 2021

The table 4.10 indicates the level of satisfaction of EMIS by the users within UBa campus. Here, majority of the respondent were not satisfied about the strength of EMIS within UBa campus. Students, lecturers and administrative staff express their level of satisfaction towards EMIS within the university campus which was generally low with respect to the percentage indications of 70%, 15% and 5% for not satisfactory, somehow satisfactory and satisfactory respectively. This may contribute to the fact that the MIS is not meeting their respective needs.

Table 4.11: Inadequate MIS tools Slow Research Work

Items	No of Respondent	Percentage %
Yes	85	85
No	15	15
Total	100	100

Source: Researcher's Field Study, 2021

Table 4.11 shows 85 of the respondent representing 85% said inadequate EMIS tools show down research work while 15 of the respondents representing 15% had little issues regarding the existence of EMIS tools. Average it can be concluded that the inadequacy of EMIS is challenge within UBa campus due to the increasing number of students. Some may also due to unstable internet connection, low speed internet, and limited technical support in UBa campus.

DISCUSSION

One hundred (100) participants were purposively selected to respond to the questionnaires. Out of these, 60 were males and 40 were females as depicted in table 4.2 they were predominantly from the 21-30 years age group.

The researcher designed questionnaires to identify the availability of information systems in UBa Campus. From the table the researcher has Departmental WhatsApp Groups (DWG), UBa Facebook page (UBaFB), Learning Management system (LMS) online teaching platform, and management information system (MIS-UBa student platform) are used. DWG representing 30%, followed by LMS which is 30%, MIS which is 30% and UBaFB is used in few occasions which represent 10%. The systems are used by lecturers, students and administrative staff to achieve the goals of the university.

Table 4.4 shows how the respondents get access to the information systems available at UBa campus. From the table, easy access to information from the telephone formed 50%, library consists of 25%, computer recorded 10%, and Notice Board noted 10% and Wireless Internet connection recorded the least with 5%. The results show wireless internet connection and computer which form the basis for EMIS are not available and easy access in the campus. According to Camilleris (2002), limited accessed to modern computing and ICT in developing countries is a great challenge to educational institutions. He also adds that providing schools with electronic data management facilitates administration and management functions.

The study also revealed the effective utilization of EMIS on the university by the three groups of respondents' that is the lecturers, students and administrative staff. This falls in line with the respective tasks to be carried out by these groups of people within the university system. The

lecturers concerned themselves to teaching and learning, while top management performs administrative and management functions such as planning, budgeting, supervision and evaluation within the university system. The administrative staffs are required to interact frequently with the available EMIS services in resolving issues arising from the usage of EMIS. The university has created Focal Points Centers within each establishment headed by personnel of the Records Office who is directly linked to an IT expert on campus to resolves challenges.

EMIS has greatly improved teaching and learning and other administrative work in the university. EMIS has provided the university with quality data, which enables utilization of this information in planning and policy dialogue for the development of the education system. EMIS provides leadership and management within the university with up-to-date information regarding organization performance.

The challenges encountered in the utilization and implementation of EMIS in the university cannot be over emphasized. From table 4.5, it can be deduced that both respondents were not satisfied about the usage and level of EMIS on the campus.

CONCLUSION

The findings of this study clearly show that EMIS has the potentials to greatly improve the quality of teaching and learning. It was evident that the university is inadequately equipped with EMIS operations. The available EMIS services were not sufficient to be effectively utilized by respondents within the university. EMIS is also regarded as a potentially powerful tool that can contribute to the improvement of the education performance. This is because, it enables management to identify challenging areas, and provide a systematic way of addressing those challenges. EMIS will support a strategic planning for education and act as a diagnostic tool to assess the existing capacity and characteristics of the education system. EMIS also provides a framework for education policy, planning, monitoring, evaluation and budgeting. Although some challenges were encountered, it serves and an obstacle in effective utilization of EMIS on campus.

RECOMMENDATIONS

In light of the findings and the conclusions drawn, the following recommendations were forwarded to strengthen EMIS practice and its positive impact in the study area:

EMIS is the backbone for quality decision making and planning. For these reason the involvement of the management is crucial for the successes of EMIS. Management should use EMIS data effectively for educational decisions and planning. It therefore requires some awareness creations at all the levels through workshops, seminars, written materials and other related methods.

The university should provide incentive and continues training for EMIS experts on basic computer, educational indicators, on education statistics software and other related topics. For effective EMIS operations in the University of Bamenda, computers and their accessories are necessary as well as related technologies of EMIS such as telephone system, internet, fax, notice board, suggestion box and e-mail services need to be provided to ensure appropriate and adequate dissemination of necessary information within and outside the university system.

Management should spend sufficient financial and material resources to EMIS unit of the university. Hence, new technologies like computer, internet software development, etc need to introduced for easy and direct access at all levels. The expansion of ICT motivates schools to use different electronic devices (formats) for data or information utilization.

Presentation of data should not be limited to the top level decision makers but also Head of Departments, Division, records office, lecturers, staff and students should be involved in the process. Providing statistical information to the respective stakeholders at various levels will result in higher cooperation and organization on part of administrators at these levels.

Insufficiency of ICT infrastructure, shortage of qualified manpower, lack of IT competency and poor coordination system were the felt problems that should be tackled by strong effort. Hence, top management of the University of Bamenda should try to design feasible EMIS improvement projects and exert their effort to implement these projects in collaboration with relevant stakeholders

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